

REMARKS

Reconsideration of the above-referenced application is respectfully requested in view of the above amendments and these remarks. Claims 5, 10 and 13 are currently pending. Applicant has cancelled claim 6.

In the Office Action, claims 10 and 13 were allowed. Applicants note with appreciation that the subject matter of these claims has been allowed.

According to the Office Action, Claim 5 is rejected under 35 U.S.C. § 102(e) as being anticipated by United States Patent No. 6,473,417 to Herzog. Applicants respectfully traverse the rejection. Applicants have amended claim 1 to correct an antecedent bases for the claimed hyperbolic tangent. Applicant has extensively described the present invention and the claims in previous Amendments. Those statements are not repeated and are incorporated by reference.

Herzog, on the other hand, is directed to a method and apparatus for reducing co-channel interference in a CDMA radio telephone system wherein a traffic channel signal is transmitted from a first station to a second station. The traffic channel signal contains information representative of a plurality of CDMA data signals each of which is modulated with a different Walsh code to transmission of the traffic channel signal. A reduced interference signal is formed at the second station by subtracting an interference signal from the traffic channel signal. It is suggested in the Office Action that column 4, lines 39-45 suggest that the interference signal is reduced by estimating the interference signal by applying a piece-wise linear estimation of the hyperbolic tangent to the metrics. It is respectfully submitted that Herzog discloses the use of a hyperbolic tangent as part of the estimated signal, i.e. "the metrics (L(c)) from decoder 250 are applied to a further signal processor 270 which applies a non-linear saturation function (e.g., $\tanh ((L(c))/2)$) to the metrics in order to form an estimated signal (c)." But this does not disclose the use of a *piecewise linear estimation of the hyperbolic tangent*. The use of the piecewise linear estimation simplifies the use of the disclosed non-linear hyperbolic tangent and is not discloses or even taught or otherwise suggested by Herzog.

In view of the foregoing, Applicant respectfully submits that Herzog does not disclose applying a piece-wise linear estimation of the hyperbolic tangent to the metrics to estimate an interference signal as required by claim 5. Applicant therefore submits that Herzog does not anticipate claim 5. It is requested that this rejection under Section 102(e) be withdrawn.

Claim 6 is rejected under 35 U.S.C. § 102(e) as being anticipated by United States 6,904,109 to Hottinen. Applicant respectfully traverses this rejection. Hottinen is directed to an interference cancellation method and a receiver operating according to the method, in which multiple access interference cancellation of received signal is performed and a confidence coefficient for estimates obtained from the received signal is calculated. It is suggested in the Office Action that column 4, lines 36-51 discloses a piece-wise linear estimation of a probability of error function is applied to the estimated symbols. It is respectfully submitted that Hottinen discloses a confidence coefficient that estimating a probability of an erroneous decision. But Hottinen fails to disclose *the piece-wise linear estimation of the probability or the error function*. The use of the piecewise linear estimation simplifies the use of the disclosed probability of error function and is not disclosed or even taught or otherwise suggested by Hottinen.

In view of the foregoing, Applicant respectfully submits that Hottinen does not disclose applying a piece-wise linear estimation of the probability of error function as claimed in claim 6. Applicant therefore submits that Herzog does not anticipate claim 6. It is requested that this rejection under Section 102(e) be withdrawn.

As the Applicant has overcome all substantive rejections and objections given by the Examiner and have complied with all requests properly presented by the Examiner, the Applicant contends that this Amendment, with the above discussion, overcomes the Examiner's objections to and rejections of the pending claims. Therefore, the Applicant respectfully solicits allowance of the application. If the Examiner is of the opinion that any issues regarding the status of the claims remain after this response, the Examiner is invited to contact the undersigned representative to expedite resolution of the matter.

Please charge any fees associated herewith, including extension of time fees, to **50-2117**.

Respectfully submitted,
Sequeira, Raul E.

SEND CORRESPONDENCE TO:

Motorola, Inc.
Law Department

Customer Number: **22917**

By: /Simon B. Anolick/
Simon B. Anolick
Attorney for Applicant
Registration No.: 37,585
Telephone: 847-576-4234
Fax: 847-576-3750